EM 9C Assessment Test

Test Year End

Answers

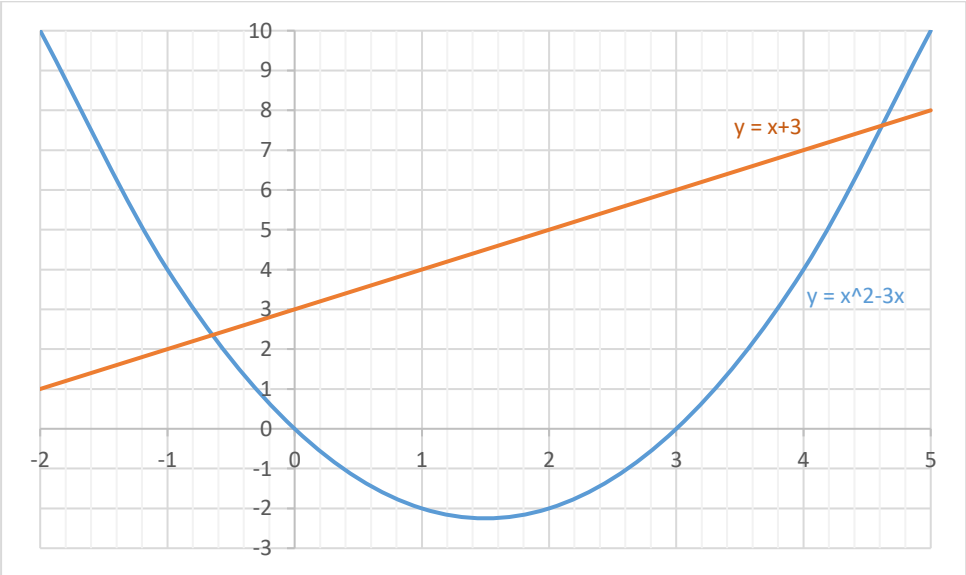
1. (a) $\frac{17}{20}$ (b) $\frac{2}{3}$ (c) £36.75
2. $m = 4.7$ m, $t = 5.8$ m
3. 20%
4.

0	**-1**	4
5	**1**	-3
-2	3	**2**

5. (a) 0.54 (b) 92
6. (a) 2.5s (b) 65 km/h
7. (a) £47,250 (b) £33,480
8. (a) $14x + 3$ (b) $n(n + 5)$ (c) $5n^3$
9. 5.03 kg
10. *multiple answers*
11. 8.5 cm
12. (a) 0.45 (b) 0.6
13. Graph A = Bike Graph B = Box of chocolates
14. (a)

x		**-2**	**-1**	**0**	**1**	**2**	**3**	**4**	**5**
x^2		**4**	1	0	1	4	**9**	16	25
$-3x$		**6**	3	0	-3	-6	**-9**	-12	-15
y		**10**	4	0	-2	-2	**0**	4	10

(b) (c)



(d) *est.* (-0.6, 2.5), (4.6, 7.5)

15. 4, 7, 10, 13
16. 4.2
17. 57.5 kg
18. $x = 1, y = 3$
19. (a) 45 mins (b) 15:15 (c) 14:15 (d) i) 40 km/h ii) 70 km/h (e) 16:15
20. $x \geq 2$